

Overview of ORNL EERE Program

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Marilyn Brown
Director, EERE Program
Oak Ridge National Laboratory

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OAK RIDGE NATIONAL LABORATORY
U. S. DEPARTMENT OF ENERGY

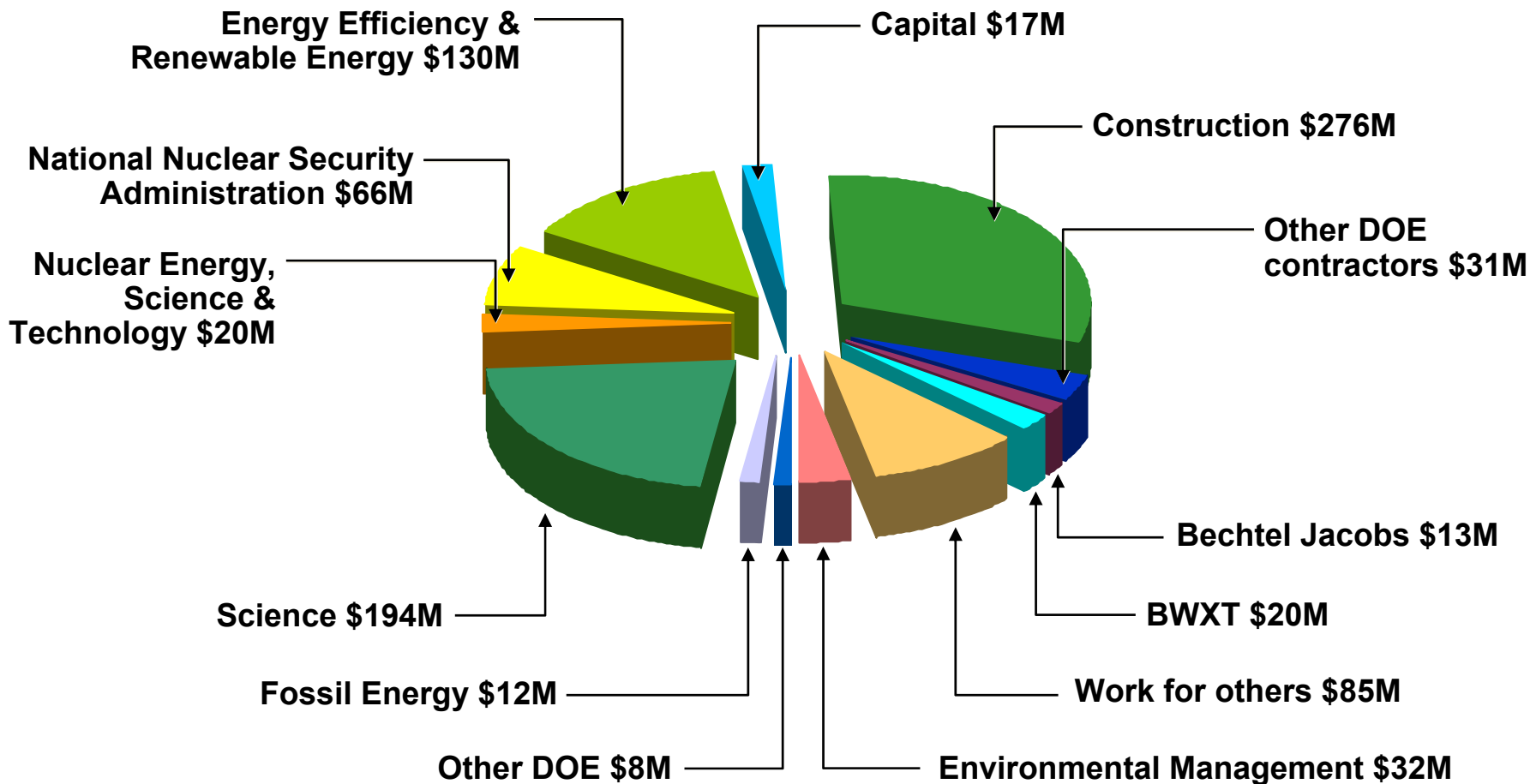
Oak Ridge National Laboratory



- DOE's largest multipurpose science laboratory
- Nation's largest concentration of unclassified materials research
- Nation's largest energy R&D laboratory
- \$896 million budget; 90% from Department of Energy
- Sixteen research divisions – 1500 R&D staff
- 3000 guest scientists and engineers annually
- 17 user facilities

ORNL cost by source for FY 2002

Actual \$896M



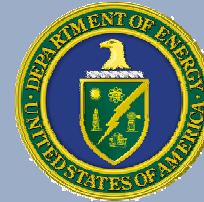
ORNL Energy Efficiency and Renewable Energy Program

Mission

Collaborative research, development, and analysis of energy-efficient and renewable energy technologies to strengthen America's energy security, environmental quality, and economic vitality

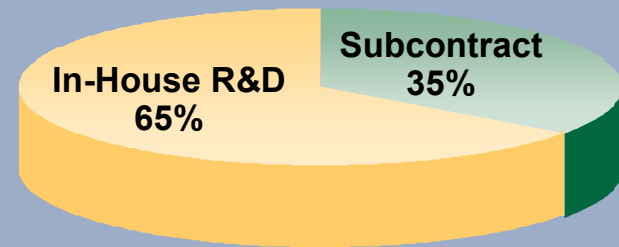
Sponsor, Customers, and Approach

- DOE is the sponsor
- Industry and the public are our customers
- States and universities are key partners

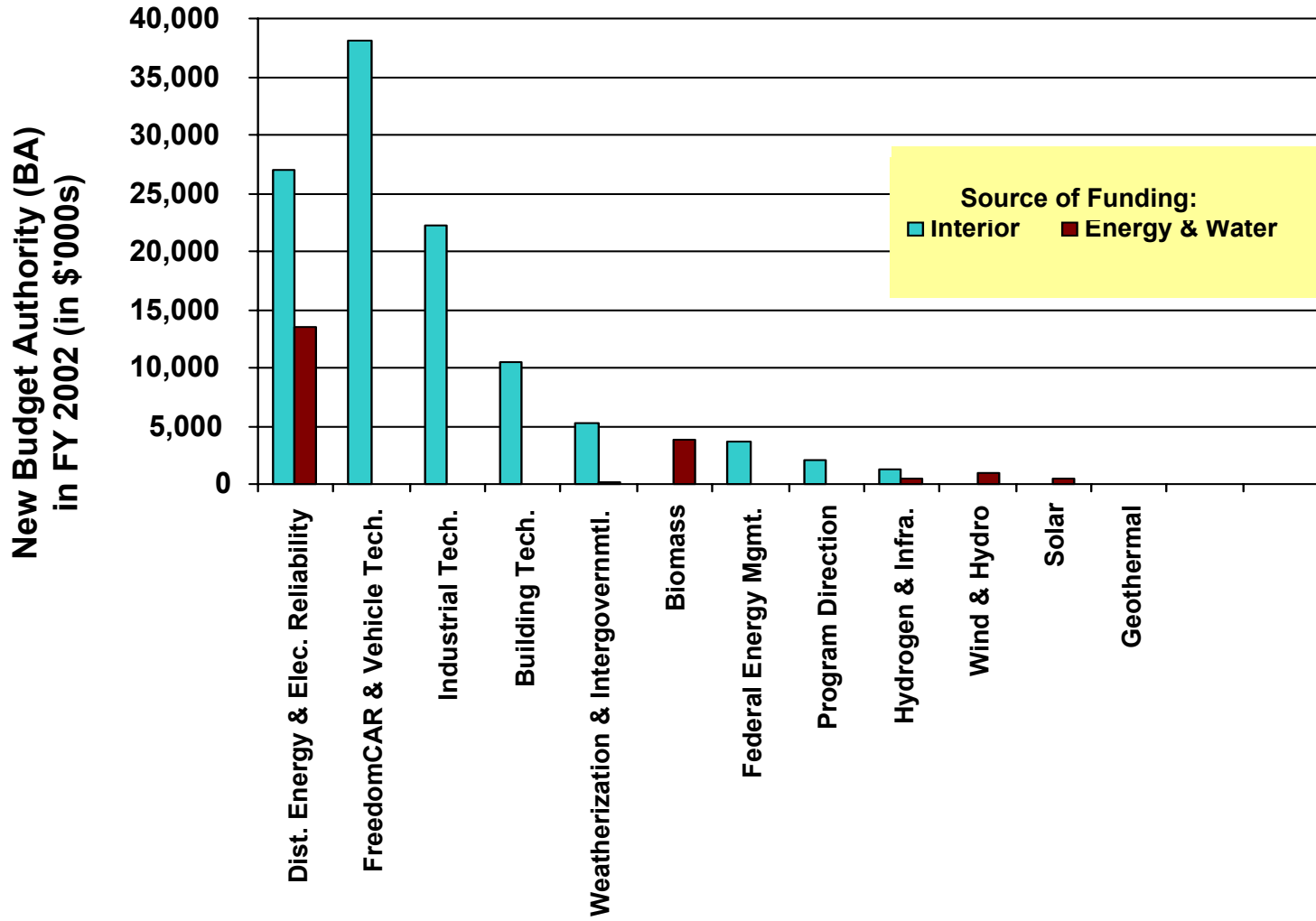


Scope

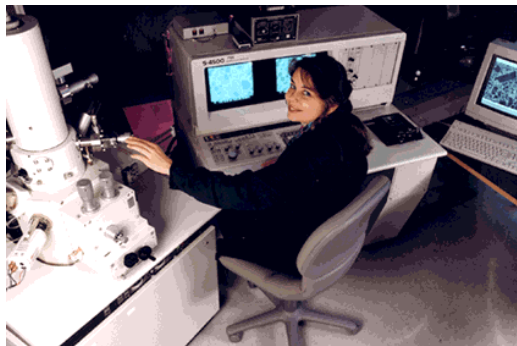
- All energy use sectors
- FY2002: ~\$130M,
~250 R&D FTEs (~400 FTEs total)



ORNL is DOE's Biggest Energy Efficiency Lab



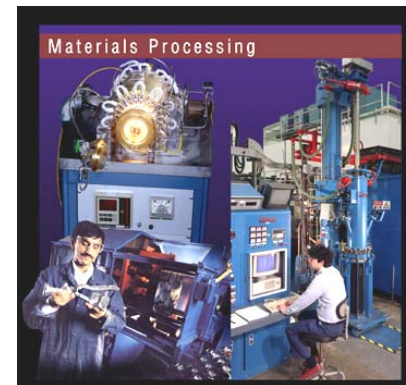
Six EERE National User Centers offer Unique Equipment and Capabilities



High Temperature Materials Laboratory (HTML)



Cooling, Heating and Power Integration Laboratory



Metals Processing Laboratory User Center (MPLUS)



Bioprocessing R&D Center (BRDC)



Buildings Technology Center (BTC)



National Transportation Research Center (NTRC)

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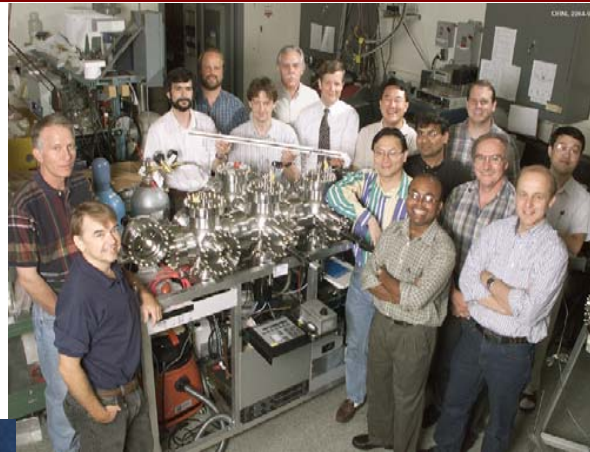
UT-BATTELLE

Personnel: World-Class and Award-Winning

R&D 100 Winners



One of the Ten Outstanding Young Americans for 2000 - Patricia Garland



- Superconducting (RABiTS) technology
- Graphite foam with high thermal conductivity
- Heat pump water heater



Fellow, American Ceramic Society - Arvid Pasto



IEEE Industry Applications Society 2001 Outstanding Young Member - Leon Tolbert



*** Since 1963 ORNL has been named on 115 R&D 100 Awards**

ORNL's EERE Program is Sponsor-Oriented and Results-Driven

- Working with our partners, ORNL has produced numerous industrial R&D breakthroughs, valuable advances, and commercial successes for EERE
 - Nickel aluminide furnace fixtures and rolls
 - Improved materials for industrial gas turbines
 - Infrared curing process adopted by Ford
 - New kraft recovery boiler floor tubes
 - High-efficiency refrigeration
 - World's first use of HTS cable in industry
 - Wear resistant ceramic cutting tools
 - Suite of industrial assessment tools

